A review of durian plant-bat pollinator interactions

ABSTRACT

Durian (Durio zibethinus) brings in princely revenue for the fruit economy in Southeast Asia, ushering the current trend of clearing forests for durian plantations. Despite the thorny fruit's popularity and increasing bat-durian papers, not many associate their vital plant-pollinator relationship. This unfamiliarity has led to the persisting negative connotations of bats as agricultural pests and worse, a disease carrier amplified by the Covid-19 pandemic. This review focuses on the bat-durian relationship comprising botanical insights and pollination ecology in relevance to the wider pteropodid-plant interactions. The majority of the studies compiled have concluded that bats are the most effective pollinator for durian than insects. Six fruit bat species (Chiroptera: Pteropodidae) have been recorded pollinating durian flowers, with several other pteropodid species speculated to pollinate durian, including in non-native countries. Lastly, we address the research gaps for the bat-durian relationship, which can also be applied to other chiropterophilous plants.